AIR POLLUTION CONTROL OPERATION PERMIT RENEWAL

EI FACILITY NO: 627005280 OPERATION PERMIT NO.: 627005280-P10
CONSTRUCTION PERMIT REVISION NO.: 05-JAJ-015-R1

TYPE: Renewal of Part 70 source operation permit no. 627005280-P02

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: Atlas Resin Proppants, LLC

Street Address: N7500 County Road P,
Taylor, Jackson County, Wisconsin

Responsible Official, & Title: Erica Grant, Production Manager

is authorized to operate a resin-coated sand or ceramic pellets production facility described in the plans and specifications dated April 8, 2011, and in conformity with the conditions herein.

This renewed operation permit expires on January 3, 2017 [Section NR 407.09(1)(b)1., Wis. Adm. Code].

A renewal application must be submitted at least 6 months, but not more than 18 months, prior to the expiration date [ss. 285.66(3)(a), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

No permittee may continue operation of a source after the operation permit expires, unless the permittee submits a timely and complete application for renewal of the permit. If a timely and complete application for renewal is submitted, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [ss. 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

Conditions of the operation permit marked with an asterisk (*) have been created outside of the Wisconsin's federally approved State Implementation Plan (SIP) and are not federally enforceable.

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I, II and III hereof.

Dated at Eau Claire, Wisconsin *1/3/2012*

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By */s/ Richard Wulk*
Richard J. Wulk
Environmental Engineer Supervisor

PREAMBLE TO OPERATION PERMIT

An Asterisk (*) throughout this document denotes legal authority, limitations and conditions which are not federally enforceable [Section NR 407.09(3)(b), Wis. Adm. Code.].

Historical Summary of Permits/Orders Issued to the Facility:

The following permits, orders, etc., are adopted, under ss. 285.65(3), Wis. Stats., and NR 407.09(2)(d), Wis. Adm. Code, by Permit 627005280-P10 which then becomes the primary enforceable document: 05-JAJ-015, 05-JAJ-015-OP, 627005280-F01, 07-JAJ-042, 627005280-P02

Permit/Order Number	Issuance Date	Sources Covered & Description[1]	Permits Adopted
05-JAJ-015	3/30/2005	P11, P13–P17, P21-P25, P27-P29, P41-P49, P51-P54, P61, P71, T31, T32	
05-JAJ-015-OP	10/10/2006	P11, P13–P17, P21-P25, P27-P29, P41-P49, P51-P54, P61, P71, T31, T32	05-JAJ-015
627005280-F01	10/10/2006	Entire Facility	05-JAJ-015, 05-JAJ-015-OP
07-JAJ-042	4/25/2007	P111, P113-P117, P121-124, P127-P129, P141-P148, P151-P153, P161-P163, P165-P166, P171, T131, T132	
627005280-P02	1/19/2010	Entire Facility	05-JAJ-015, 05-JAJ-015-OP, 627005280-F01, 07-JAJ-042
05-JAJ-015-R1	1/3/2012	P51-P53 and P151-P153	05-JAJ-015, 05-JAJ-015-OP
627005280-P10	1/3/2012	Entire Facility	05-JAJ-015, 05-JAJ-015-OP, 05-JAJ-015-R1, 627005280-F01, 07-JAJ-042, 627005280-P02

[1] - Entire Facility refers to all existing units at the facility at the time of issuance of the permit listed.

Stack and Process Index:

Plant #1:

Stack S14, Control Device C14, Process P14 – Raw Silo #1
Stack S15, Control Device C15, Process P15 – Raw Silo #2
Stack S22, Control Device C22, Process P22 – Raw Silo #3
Stack S20, Control Device C20:
- **Process P13** - Elevator #1
- **Process P16** - Conveyor #2
- **Process P17** - Elevator #2
- **Process P21** - Day Tank #1
- **Process P23** - Weigh Hopper #1
- **Process P24** - Raw Material Heater
- **Process P25** – Cyclone
- **Process P27** - Elevator #3
- **Process P28** - Resin Tank
- **Process P29** - Weigh Hopper #2
- **Process P41** - Shaker Screen
- **Process P42** - Elevator #4
- **Process P43** - Scalping Screen
- **Process P44** - Product Cooler
- **Process P45** - Conveyor #3
- **Process P46** - Elevator #5
- **Process P47** - Finished Silo #1
- **Process P48** - Finished Silo #2
- **Process P49** - Weigh Belt
- **Process P71** - Finished Silo #3

Stack S50, Control Device C50:
- **Process P51** - Batch Mixer
- **Process P52** - Continuous Mixer

Process P53 - Sludge Tank #1
Fugitive Source F11, Process P11 – Railcar Unloading
Fugitive Source F61, Process P61 –Railcar Loading

Plant #2:
Stack S114, Control Device C114, Process P114 – Raw Silo #11
Stack S115, Control Device C115, Process P115 – Raw Silo #12
Stack S120, Control Device C120:
Process P113 - Elevator #11
Process P116 - Conveyor #12
Process P117 - Elevator #12
Process P121 - Day Tank
Process P122 - Weigh Hopper #11
Process P123 - Raw Material Heater
Process P124 – Cyclone
Process P127 - Elevator #13
Process P128 - Resin Tank
Process P129 - Weigh Hopper #12
Process P141 - Shaker Screen
Process P142 - Elevator #14
Process P143 - Scalping Screen
Process P144 - Product Cooler
Process P145 - Elevator #15
Process P146 - Finished Silo #11
Process P147 - Finished Silo #12
Process P148 - Finished Silo #13
Process P161 - Conveyor #13
Process P162 - Elevator #16
Process P163 - Weigh Belt
Stack S150, Control Device C150:
Process P151 - Batch Mixer
Process P152 - Continuous Mixer
Process P153 - Sludge Tank
Fugitive Source F111 Process P111 – Railcar Unloading - Plant #2
Fugitive Source F171, Process P171 –Railcar Loading - Plant #2

Insignificant Emission Units:
Boiler, Turbine, and HVAC System Maintenance
Convenience Space Heating (< 5 million BTU/hr Burning Gas, Liquid, or Wood)
Convenience Water Heating
Demineralization and Oxygen Scavenging of Water for Boilers
Fire Control Equipment
Fuel Oil Storage Tanks (< 10,000 gal.)
Internal Combustion Engines Used for Warehousing and Material Transport
Janitorial Activities
Maintenance of Grounds, Equipment, and Buildings (lawn care, painting, etc.)
Office Activities
Pollution Control Equipment Maintenance
Sanitary Sewer and Plumbing Venting
Additive Tote System
Flake Resin Loading
Haul Trucks
Maintenance Cutting and Welding
Quality Control Testing - Plant 1
Quench Water System

Raw Material Conveyor #11
Scrap Coated Sand Storage - Plant 2
Solvent Cold Cleaning - Plant 1

Permit Shield: Unless precluded by the Administrator of the US EPA, compliance with all emission limitations in this operation permit is considered to be compliance with all emission limitations established under ss. 285.01 to 285.87, Wis. Stats., and emission limitations under the federal clean air act, that are applicable to the source if the permit includes the applicable limitation or if the Department determines that the emission limitations do not apply. The following emission limitations were reviewed in the analysis and preliminary determination and were determined not to apply to this stationary source:

None.

Part I - The headings for the areas in the permit are defined below. The legal authority for these limitations or methods follows them in [brackets].

Pollutant - This area will note which pollutant is being regulated by the permit.

Limitations - This area will list all applicable emission limitations that apply to the source, including case-by-case limitations such as Latest Available Control Techniques (LACT), Best Available Control Technology (BACT), or Lowest Achievable Emission Rate (LAER). It will also list any voluntary restrictions on hours of operation, raw material use, or production rate requested by the permittee to limit potential to emit.

Compliance Demonstration - The compliance demonstration methods outlined in this area may be used to demonstrate compliance with the associated emission limit or work practice standard listed under the corresponding **Limitations** column. The compliance demonstration area contains limits on parameters or other mechanisms that will be monitored periodically to ensure compliance with the limitations. The requirement to test as well as initial and periodic test schedules, if testing is required, will be stated here. Notwithstanding the compliance determination methods which the owner or operator of a sources is authorized to use under ch. NR 439, Wis. Adm. Code, the Department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

Reference Test Methods, Recordkeeping, and Monitoring Requirements - Specific US EPA Reference test methods or other approved test methods will be contained in this area and are the methods that must be used whenever testing is required. A reference test method will be listed even if no testing is immediately required. Also included in this area are any recordkeeping requirements and their frequency and reporting requirements. Accuracy of monitoring equipment shall meet, at a minimum, the requirements of s. NR 439.055(3) and (4), Wis. Adm. Code, as specified in Part II of this permit.

Condition Type - This area will specify other conditions that are applicable to the entire facility that may not be tied to one specific pollutant.

Conditions - Specific conditions usually applicable to the entire facility or compliance requirements.

PART II - This section contains the general limitations that the permittee must abide by. These requirements are standard for most sources of air pollutants so they are included in this section with every permit.

PART III — This section contains the requirements of 40 CFR 64 Compliance Assurance Monitoring (CAM) that the permittee must abide by.

PART I

A. Stack S14, Control Device C14, Process P14 — Raw Silo #1. [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.10 pounds per hour. [1] [ss. NR 415.05(1)(o) and 415.05(2), Wis. Adm. Code, and 05-JAJ-015] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 60 feet above ground level. (b) The stack outlet diameter may not be greater than 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the horizontal flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The panel filter control device shall be in line and shall be operated at all times when the process is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The requirements in I.A.1.b. and I.A.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[1] The 0.10 pounds per hour emission limit is based on 0.40 pounds of particulate per 1,000 pounds of gas, for: 56 acfm, ambient exhaust temperature, and 0.02% moisture. This emission limit is more restrictive than the allowable emission limit of 38.6 pounds per hour calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code, for a process weight rate of 150 tons per hour.

B. Stack S15, Control Device C15, Process P15 — Raw Silo #2. [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.10 pounds per hour. [2] [ss. NR 415.05(1)(o) and 415.05(2), Wis. Adm. Code, and 05-JAJ-015] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 60 feet above ground level. (b) The stack outlet diameter may not be greater than 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the horizontal flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The panel filter control device shall be in line and shall be operated at all times when the process is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The requirements in I.B.1.b. and I.B.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[2] The 0.10 pounds per hour emission limit is based on 0.40 pounds of particulate per 1,000 pounds of gas, for: 56 acfm, ambient exhaust temperature, and 0.02% moisture. This emission limit is more restrictive than the allowable emission limit of 38.6 pounds per hour calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code, for a process weight rate of 150 tons per hour.

C. Stack S22, Control Device C22, Process P22 — Raw Silo #3. [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.10 pounds per hour. [3] [ss. NR 415.05(1)(o) and 415.05(2), Wis. Adm. Code, and 627005280-P02] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 60 feet above ground level. (b) The stack outlet diameter may not be greater than 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the horizontal flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 627005280-P02]	**(1)** The panel filter control device shall be in line and shall be operated at all times when the process is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 627005280-P02]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 627005280-P02]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 627005280-P02]	**(1)** The requirements in I.C.1.b. and I.C.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 627005280-P02]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[3] The 0.10 pounds per hour emission limit is based on 0.40 pounds of particulate per 1,000 pounds of gas, for: 56 acfm, ambient exhaust temperature, and 0.02% moisture. This emission limit is more restrictive than the allowable emission limit of 38.6 pounds per hour calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code, for a process weight rate of 150 tons per hour.

D. Stack S20, Control Device C20 – Processes: P13 - Elevator #1, P16 - Conveyor #2, P17 - Elevator #2, P21 - Day Tank #1, P23 - Weigh Hopper #1, P24 - Raw Material Heater, P25 - Cyclone, P27 - Elevator #3, P28 - Resin Tank, P29 - Weigh Hopper #2, P41 - Shaker Screen, P42 - Elevator #4, P43 - Scalping Screen, P44 - Product Cooler, P45 - Conveyor #3, P46 - Elevator #5, P47 - Finished Silo #1, P48 - Finished Silo #2, P49 - Weigh Belt, P71 - Finished Silo #3, and P72 - Finished Product Silo #4. [Constructed 2005, P72 constructed 2006]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 1.0 pounds per hour. [4] [ss. NR 404.08(2) and NR 415.05(1)(m) or 415.05(2), Wis. Adm. Code, and 07-JAJ-042] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 16 feet above ground level. (b) The stack outlet diameter may not be greater than 2 feet 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 05-JAJ-015] **(3)** Compliance Assurance Monitoring (CAM) Requirements: Processes exhausting to C20/S20 are a pollutant-specific emissions unit for particulate matter and is subject to the CAM requirements of 40 CFR, part 64. The permittee's Compliance Assurance Monitoring Plan for Baghouse C20 for PM control is included as Part III of this permit. [s. 285.65(13), Wis. Stats. 40 CFR 64.2 and 40 CFR 64.3(d)]	**(1)** The baghouse control device shall be in line and shall be operated at all times when the processes are in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015] **(2)** Instrumentation to monitor the pressure drop across the baghouse control device shall be operated properly. [s. NR 439.055(1)(a), Wis. Adm. Code, and 05-JAJ-015] **(3)** The pressure drop across the baghouse control device shall be maintained between 1 and 8 inches water column, or as required in the CAM Plan under Part III. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensible backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015] **(3)** The permittee shall record the pressure drop across the baghouse once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and 05-JAJ-015] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the baghouse system, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015] **(5)** The baghouse control device pressure drop monitoring device shall be maintained in accordance with the manufacturer's recommendations and shall be calibrated at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and 05-JAJ-015]

[4] The 1.0 pounds per hour emission limit is based on modeling and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the allowable emission limit of 10.31 pounds per hour calculated from the from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code. The emission rate determined using the process weight equation is less restrictive than the emission limit calculated from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code.

D. Stack S20, Control Device C20 – Processes: P13 - Elevator #1, P16 - Conveyor #2, P17 - Elevator #2, P21 - Day Tank #1, P23 - Weigh Hopper #1, P24 - Raw Material Heater, P25 - Cyclone, P27 - Elevator #3, P28 - Resin Tank, P29 - Weigh Hopper #2, P41 - Shaker Screen, P42 - Elevator #4, P43 - Scalping Screen, P44 - Product Cooler, P45 - Conveyor #3, P46 - Elevator #5, P47 - Finished Silo #1, P48 - Finished Silo #2, P49 - Weigh Belt, P71 - Finished Silo #3, and P72 - Finished Product Silo #4. [Constructed 2005, P72 constructed 2006]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The requirements in I.D.1.b. and I.D.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
3. Hazardous Air Pollutants Regulated by the Clean Air Act: NESHAP for Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources (40 CFR, Part 63, Subpart DDDDD)	***The permittee shall comply with the requirements of this section at such time as judicial review is no longer pending or US EPA completes its reconsideration of the rules, whichever is earlier. [40 CFR s. 63.7495(b)]*** **(1)** The permittee shall comply with the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources, as applicable.[5] [40 CFR, Part 63, Subpart DDDDD]		

[5] On March 21, 2011, an amended version of EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources, was published as a final rule in the Federal Register (40 CFR Part 63, subpart DDDDD). Under the amended rule, natural gas, raw material heater P24 is a "process heaters" per the definition in 40 CFR s. 63.7575. Because this process heater was constructed prior to June 4, 2010, it is considered existing affected sources, pursuant to 40 CFR s. 63.7490(d). The heater burns natural gas and is included in the boiler and process heater subcategory "units designed to burn natural gas, refinery gas or other gas 1 fuels" in 40 CFR s. 63.74999(l). Process heater P24 has a heat input capacity less than 10 million Btu per hour (rated at 6.0 million Btu per hour), As an existing affected source it is required to comply with the requirements of 40 CFR Part 63, subpart DDDDD of the amended rule no later than March 21,2014, pursuant to 40 CFR s. 63.7495(b).

However, on May 16, 2011 US EPA "stayed" this amended rule and will be seeking additional public feedback and gathering more information on the final standards. The US EPA will accept additional data and information on the standard until July 15, 2011. This reconsideration delays the effective dates of the rule until such time as judicial review is no longer pending or until US EPA completes its reconsideration of the rules, whichever is earlier. Because the NESHAP requirements for industrial, commercial, and institutional boilers and process heaters at major sources may change significantly, they are not included in the draft permit. When US EPA's reconsideration of this NESHAP is complete or judicial review is no longer pending, whichever is earlier, the permittee will be required to comply with all applicable requirements by the established compliance dates and this operation permit would be revised to incorporate the applicable emission limitations, work practice and other requirements.

ARP-Taylor00166

E. Stack S50, Control Device C50 - Processes: P51 - Batch Mixer, P52 - Continuous Mixer, and P53 - Sludge Tank #1 [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 1.5 pounds per hour. [6] [ss. NR 404.08(2) and NR 415.05(1)(m) or 415.05(2), Wis. Adm. Code, and 05-JAJ-015] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 75 feet above ground level. (b) The stack outlet diameter may not be greater than 2 feet. (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The wet scrubber control device, including demister, shall be in line and shall be operated at all times when the processes are in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015] **(2)** Instrumentation to monitor the pressure drop across the wet scrubber and demister, in inches of water column, shall be operated properly. [s. NR 439.055(1)(e), Wis. Adm. Code, and 05-JAJ-015] (3) To verify wet scrubber liquor flow, the permittee shall do one of the following: (a) Operate instrumentation to monitor the wet scrubber liquor flow rate, in gallons per minute [s. NR 439.055(1)(e), Wis. Adm. Code and 05-JAJ-015]; or (b) Conduct visual inspections of the scrubber liquor pump flow to confirm return flow of scrubber liquor to sludge tank and monitor and record the motor power of the scrubber liquor recirculation pump. [s. 285.65(4), Wis. Stats. and s. NR 407.09(4), Wis. Adm. Code] **(4)** Instrumentation and laboratory techniques[7] to monitor the pH of the wet scrubber absorbing fluid shall be utilized properly. [s. NR 439.055(1)(f), Wis. Adm. Code, and 05-JAJ-015] **(5)** The pressure drop across the wet scrubber and	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensible backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015] **(3) T**he permittee shall measure and record the following operational variables once for every 8 hours of operation or once per day, whichever yields the greater number of measurements: (a) Pressure drop across the wet scrubber and demister, in inches of water column, (b) pH of the absorption scrubbing fluid, (c) Either: (i) Flow of liquor, in gallons per minute; OR (ii) Motor power of the scrubber liquor recirculation pump, and the results of the visual inspections required by I.E.1.b.(3)(b), including the date, time,

[6] The 1.5 pounds per hour emission limit is based on modeling and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the allowable emission limit of 5.18 pounds per hour calculated from the from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code. The emission rate determined using the process weight equation is less restrictive than the emission limit calculated from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code.

[7] Atlas takes samples from the sludge tank manually and the pH of the samples are measured in the laboratory.

E. Stack S50, Control Device C50 - Processes: P51 - Batch Mixer, P52 - Continuous Mixer, and P53 - Sludge Tank #1 [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		demister shall be maintained between 8 and 17 inches water column, or an alternative range approved in writing by the Department. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015]	and name or initials of the individual performing the inspection. [s. NR 439.055(2)(b), Wis. Adm. Code, and s. 285.65(4), Wis. Stats., and 05-JAJ-015] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the wet scrubber system, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015] **(5)** The wet scrubber pressure drop, liquor flow, and pH monitoring devices shall be maintained in accordance with the manufacturer's recommendations and shall be calibrated at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and 05-JAJ-015]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 05-JAJ-015]	**(1)** The requirements in I.E.1.b. and I.E.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
3. Volatile Organic Compounds	**(1)** Latest Available Control Techniques and operating practices demonstrating best current technology (LACT). The permittee has demonstrated that 85% control of VOC emissions leaving the wet scrubber is technologically infeasible for the process line, and so shall use LACT. LACT is defined as the following process operation practices and limitations: (a) The facility shall operate the wet scrubber at all times processes	**(1)** The facility shall operate the wet scrubber at all times the processes are operating. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 05-JAJ-015] **(2)** As required under I.E.1.b.(2)-(4). **(3)** The pressure drop across the wet scrubber and demister, the liquor flow rate, and the pH of the scrubbing fluid shall be maintained per manufacturer specifications, the most recent compliance test, the malfunction prevention and abatement plan required under I.ZZZ.1., or the	**(1)** Whenever VOC compliance testing is required, USEPA Method 18, 25 or 25A, or another method approved by the Department in writing shall be used. When approved in writing an equivalent test method may be substituted for the required test method. [s. NR 439.06(3), Wis. Adm. Code, and 05-JAJ-015] **(2)** As required under I.E.1.c.(3)-(5). **(3)** The permittee shall inspect the circulation pump and packing of the wet scrubber

E. Stack S50, Control Device C50 - Processes: P51 - Batch Mixer, P52 - Continuous Mixer, and P53 - Sludge Tank #1 [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	P51, P52, and P53 are operational, with monitoring of parameters: pressure differential, liquor flow rate, and pH of the scrubbing fluid. (b) The wet scrubber shall achieve one of the following: (i) An overall control efficiency of 64% for VOC emissions, or (ii) VOC emission rate no greater than 10.6 pounds per hour. [s. NR 424.03(2)(c), Wis. Adm. Code, and 05-JAJ-015] **(2)** Compliance Assurance Monitoring (CAM) Requirements: Processes exhausting to C50/S50 are a pollutant-specific emissions unit for volatile organic compounds and is subject to the CAM requirements of 40 CFR, part 64. The permittee's Compliance Assurance Monitoring Plan for Scrubber C50 for volatile organic compound control is included as Part III of this permit. [s. 285.65(13), Wis. Stats. 40 CFR	CAM plan required under Part III to meet the requirements under I.E.3.a.(1) and I.E.1.a.(1). [s. NR 419.03(1), Wis. Adm. Code, and s. 285.65(7), Wis. Stats., and 05-JAJ-015]	monthly. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the wet scrubber, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015]

E. Stack S50, Control Device C50 - Processes: P51 - Batch Mixer, P52 - Continuous Mixer, and P53 - Sludge Tank #1 [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	64.2 and 40 CFR 64.3(d)]		
4. Phenol Emissions	**(1)** The processes may not emit more than 1,583 pounds of phenol per month, based on a 12-month rolling average (9.5 tons per year). [s. 285.65(7), Wis. Stats., and 07-JAJ-042-R1] **(2)** The free phenol content of the resin may not exceed 1.5%, by weight. [s. 285.65(7), Wis. Stats., and 05-JAJ-015] **(3)** The wet scrubber shall achieve one of the following: (a) An overall control efficiency of 64% for VOC emissions, as required under I.E.3.a.(1)(b)(i), (b) An overall control efficiency of 54.5% for phenol emissions, or (c) A maximum emission rate of 2.8 lb/hr.[8] [s. 285.65(7), Wis. Stats., 05-JAJ-015 and 627005280-P02]	**(1)** Each calendar month, the permittee shall calculate the phenol emissions from this stack as follows. This calculation shall be performed within 15 calendar days of the end of each month. [s. NR 407.09(4)(a), Wis. Adm. Code and 05-JAJ-015-R1] $E_{phenol} = \sum[(EF_i \times Z_i) \times (1-C_{eff})$ where, E_{phenol} is the monthly phenol emissions in pounds per month; EF_i is an emission factor of the amount of phenol emitted per pound of each resin "i" used (lbs-phenol/lb resin)[9]; Z_i is the amount of resin "i" used in pounds per month; and C_{eff} is the efficiency of any control device controlling phenol emissions.[10] **(2)** To demonstrate compliance with condition I.E.4.a.(1), the permittee shall calculate the average phenol emissions from the facility over each 12 consecutive month period by summing the monthly phenol emissions as calculated in I.E.4.b.(1) for each consecutive 12 month period and dividing by 12. This calculation shall be performed within 15 calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code and 05-JAJ-015-	**(1)** Whenever Phenol compliance testing is required, NIOSH Method 2546, or another method approved by the Department in writing shall be used. When approved in writing an equivalent test method may be substituted for the required test method. [s. NR 439.06(8), Wis. Adm. Code, and 05-JAJ-015] **(2)** The permittee shall maintain records of the following: (a) The total amount of each resin used in pounds per month (Z_i); (b) The monthly phenol emission rate in pounds per month (E_{phenol}) as calculated in I.E.4.b.(1); (c) The 12-month rolling average phenol emission rate for each consecutive 12 month period, as calculated in I.E.4.b.(2); and (d) Material safety data sheets or other technical documents which show the free phenol content of each resin used. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and s. 285.65(7), Wis. Stats., and 05-JAJ-015] **(3)** As required under I.E.1.c.(3).

[8] This emission limitation established under 627005280-P02, along with current limits under (1) – (3) will keep potential emissions of phenol to <10 TPY (9.5 TPY).
[9] At the time of permit issuance, two types of resins are used, novalac and resol. The emissions factor for novalac resin ($EF_{novalac}$) is 0.0059 lbs-phenol/lb novalac resin. The emission factor for resol resin (E_{resol}) is 0.0012 lbs-phenol/lb resol resin. The permittee may use alternate emission factors if approved by the department in writing.
[10] At the time of permit issuance C_{eff} is 54.5 percent as established by stack testing conducted in June 2006. The permittee may use a C_{eff} as determined during the most recent phenol compliance emission test, and as approved by the department in writing.

E. Stack S50, Control Device C50 - Processes: P51 - Batch Mixer, P52 - Continuous Mixer, and P53 - Sludge Tank #1 [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		R1] **(3)** As required under I.E.3.b.(3).	

F. Fugitive Sources F11 and F61, Processes P11 and P61 – Railcar Unloading (P11/F11) and Railcar Loading (P61/F61). [Constructed 2005]

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Fugitive Dust	**(1)** The permittee may not cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may the permittee allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted, or demolished without taking such precautions. [s. NR 415.04(Intro.), Wis. Adm. Code, and 05-JAJ-015]	**(1)** No person may cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions. [s. NR 415.04, Wis. Adm. Code, and 05-JAJ-015] **(2)** Such precautions shall include, but not be limited to: (a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations. (b) Application of asphalt, water, suitable chemicals or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem. (c) Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled. (d) Covering or securing of materials likely to become airborne while being moved on public roads, railroads or navigable waters. (e) Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution. (f) The paving or maintenance of roadway areas so as not to create air pollution. [s. NR 415.04(1), Wis. Adm. Code, and 05-JAJ-015]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** If using water or chemicals for dust control, the permittee shall record: (a) the date and time of the water or chemical application; and (b) the area(s) at the facility where water or chemicals are applied. [s. NR 439.04(1)(d), Wis. Adm. Code, and 05-JAJ-015]

G. Stack S114, Control Device C114, Process P114 – Raw Silo #11

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.10 pounds per hour. [11] [ss. NR 415.05(1)(o) and 415.05(2), Wis. Adm. Code, and 07-JAJ-042] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 60 feet above ground level. (b) The stack outlet diameter may not be greater than 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the horizontal flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The panel filter control device shall be in line and shall be operated at all times when the process is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The requirements in I.G.1.b. and I.G.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[11] The 0.10 pounds per hour emission limit is based on 0.40 pounds of particulate per 1,000 pounds of gas, for: 56 acfm, ambient exhaust temperature, and 0.02% moisture. This emission limit is more restrictive than the allowable emission limit of 38.6 pounds per hour calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code, for a process weight rate of 150 tons per hour.

H. Stack S115, Control Device C115, Process P115 – Raw Silo #12

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.10 pounds per hour. [12] [ss. NR 415.05(1)(o) and 415.05(2), Wis. Adm. Code, and 07-JAJ-042] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 60 feet above ground level. (b) The stack outlet diameter may not be greater than 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the horizontal flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The panel filter control device shall be in line and shall be operated at all times when the process is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The requirements in I.H.1.b. and I.H.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[12] The 0.10 pounds per hour emission limit is based on 0.40 pounds of particulate per 1,000 pounds of gas, for: 56 acfm, ambient exhaust temperature, and 0.02% moisture. This emission limit is more restrictive than the allowable emission limit of 38.6 pounds per hour calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code, for a process weight rate of 150 tons per hour.

I. Stack S120, Control Device C120, Processes: P113 – Elevator #11, P116 - Conveyor #12, P117 - Elevator #12, P121 - Day Tank, P122 - Weigh Hopper #11, P123 - Raw Material Heater, P124 - Cyclone, P127 – Elevator #13, P128 - Resin Tank, P129 - Weigh Hopper #12, P141 - Shaker Screen, P142 - Elevator #14, P143 - Scalping Screen, P144 - Product Cooler, P145 - Elevator #15, P146 - Finished Silo #11, P147 - Finished Silo #12, P148 - Finished Silo #13, P161 - Conveyor #13, P162 - Elevator #16, P163 Weigh Belt

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 1.0 pounds per hour. [13] [ss. NR 404.08(2) and NR 415.05(1)(m) or 415.05(2), Wis. Adm. Code, and 07-JAJ-042] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 16 feet above ground level. (b) The stack outlet diameter may not be greater than 2 feet 6 inches. (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 07-JAJ-042] **(3)** Compliance Assurance Monitoring (CAM) Requirements: Processes exhausting to C120/S120 are a pollutant-specific emissions unit for particulate matter and is subject to the CAM requirements of 40 CFR, part 64. The permittee's Compliance Assurance Monitoring Plan for	**(1)** The baghouse control device shall be in line and shall be operated at all times when the processes are in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042] **(2)** Instrumentation to monitor the pressure drop across the baghouse control device shall be installed and operated properly. [s. NR 439.055(1)(a), Wis. Adm. Code, and 07-JAJ-042] **(3)** The pressure drop across the baghouse control device shall be maintained between 1 and 8 inches water column, or as required in the CAM Plan under Part III. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensible backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042] **(3)** The permittee shall record the pressure drop across the baghouse once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055(2)(b)1., Wis. Adm. Code, and 07-JAJ-042] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the baghouse system, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042] **(5)** The baghouse control device pressure drop

[13] The 1.0 pounds per hour emission limit is based on modeling and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the allowable emission limit of 10.3 pounds per hour calculated from the from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code. The emission rate determined using the process weight equation is less restrictive than the emission limit calculated from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code.

I. Stack S120, Control Device C120, Processes: P113 – Elevator #11, P116 - Conveyor #12, P117 - Elevator #12, P121 - Day Tank, P122 - Weigh Hopper #11, P123 - Raw Material Heater, P124 - Cyclone, P127 – Elevator #13, P128 - Resin Tank, P129 - Weigh Hopper #12, P141 - Shaker Screen, P142 - Elevator #14, P143 - Scalping Screen, P144 - Product Cooler, P145 - Elevator #15, P146 - Finished Silo #11, P147 - Finished Silo #12, P148 - Finished Silo #13, P161 - Conveyor #13, P162 - Elevator #16, P163 Weigh Belt

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	Baghouse C120 for PM control is included as Part III of this permit. [s. 285.65(13), Wis. Stats. 40 CFR 64.2 and 40 CFR 64.3(d)]		monitoring device shall be maintained in accordance with the manufacturer's recommendations and shall be calibrated at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and 07-JAJ-042]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 07-JAJ-015]	**(1)** The requirements in I.I.1.b. and I.I.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
3. Hazardous Air Pollutants Regulated by the Clean Air Act: NESHAP for Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources (40 CFR, Part 63,	***The permittee shall comply with the requirements of this section at such time as judicial review is no longer pending or US EPA completes its reconsideration of the rules, whichever is earlier. [40 CFR s. 63.7495(b)]*** **(1)** The permittee shall comply with the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources, as applicable.[14] [40 CFR, Part 63, Subpart DDDDD]		

[14] On March 21, 2011, an amended version of EPA's NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources, was published as a final rule in the Federal Register (40 CFR Part 63, subpart DDDDD). Under the amended rule, natural gas, raw material heater P123 is a "process heaters" per the definition in 40 CFR s. 63.7575. Because this process heater was constructed prior to June 4, 2010, it is considered existing affected sources, pursuant to 40 CFR s. 63.7490(d). The heater burns natural gas and is included in the boiler and process heater subcategory "units designed to burn natural gas, refinery gas or other gas 1 fuels" in 40 CFR s. 63.74999(l). Process heater P123 has a heat input capacity less than 10 million Btu per hour (rated at 6.0 million Btu per hour), As an existing affected source it is required to comply with the requirements of 40 CFR Part 63, subpart DDDDD of the amended rule no later than March 21,2014, pursuant to 40 CFR s. 63.7495(b).

However, on May 16, 2011 US EPA "stayed" this amended rule and will be seeking additional public feedback and gathering more information on the final standards. The US EPA will accept additional data and information on the standard until July 15, 2011. This reconsideration delays the effective dates of the rule until such time as judicial review is no longer pending or until US EPA completes its reconsideration of the rules, whichever is earlier. Because the NESHAP requirements for industrial, commercial, and institutional boilers and process heaters at major sources may change significantly, they are not included in the draft permit. When US EPA's reconsideration of this NESHAP is complete or judicial review is no longer pending, whichever is earlier, the permittee will be required to comply with all applicable requirements by the established compliance dates and this operation permit would be revised to incorporate the applicable emission limitations, work practice and other requirements.

I. Stack S120, Control Device C120, Processes: P113 – Elevator #11, P116 - Conveyor #12, P117 - Elevator #12, P121 - Day Tank, P122 - Weigh Hopper #11, P123 - Raw Material Heater, P124 - Cyclone, P127 – Elevator #13, P128 - Resin Tank, P129 - Weigh Hopper #12, P141 - Shaker Screen, P142 - Elevator #14, P143 - Scalping Screen, P144 - Product Cooler, P145 - Elevator #15, P146 - Finished Silo #11, P147 - Finished Silo #12, P148 - Finished Silo #13, P161 - Conveyor #13, P162 - Elevator #16, P163 Weigh Belt

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
Subpart DDDDD)			

J. Stack S150, Control Device C150, Processes: P151 - Batch Mixer (P151), P152 - Continuous Mixer, and P153 - Sludge Tank

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 1.5 pounds per hour. [15] [ss. NR 404.08(2) and NR 415.05(1)(m) or 415.05(2), Wis. Adm. Code, and 07-JAJ-042] **(2)** Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) Stack height shall be at least 75 feet above ground level. (b) The stack outlet diameter may not be greater than 2 feet. (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The wet scrubber control device, including demister, shall be in line and shall be operated at all times when the processes are in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042] **(2)** Instrumentation to monitor the pressure drop across the wet scrubber and demister, in inches of water column, shall be installed and operated properly. [s. NR 439.055(1)(e), Wis. Adm. Code, and 07-JAJ-042] (3) To verify wet scrubber liquor flow, the permittee shall do one of the following: (a) Operate instrumentation to monitor the wet scrubber liquor flow rate, in gallons per minute [s. NR 439.055(1)(e), Wis. Adm. Code and 07-JAJ-042]; or (b) Conduct visual inspections of the scrubber liquor pump flow to confirm return flow of scrubber liquor to sludge tank and monitor and record the motor power of the scrubber liquor recirculation pump. [s. 285.65(4), Wis. Stats. and s. NR 407.09(4), Wis. Adm. Code] **(4)** Instrumentation and laboratory techniques[16] to monitor the pH of the wet scrubber absorbing fluid shall be utilized properly. [s. NR 439.055(1)(f), Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensible backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042] **(3) T**he permittee shall measure and record the following operational variables once for every 8 hours of operation or once per day, whichever yields the greater number of measurements: (a) Pressure drop across the wet scrubber and demister, in inches of water column, (b) pH of the absorption scrubbing fluid, (c) Either: (i) Flow of liquor, in gallons per minute; OR (ii) Motor power of the scrubber liquor recirculation pump, and the results of the visual inspections required by I.E.1.b.(3)(b), including the date, time, and name or initials of the individual

[15] The 1.5 pounds per hour emission limit is based on modeling and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the allowable emission limit of 5.18 pounds per hour calculated from the from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code. The emission rate determined using the process weight equation is less restrictive than the emission limit calculated from 0.2 pounds per 1,000 pounds of exhaust gas limit in s. NR 415.05(1)(m), Wis. Adm. Code.

[16] Atlas takes samples from the sludge tank manually and the pH of the samples are measured in the laboratory.

J. Stack S150, Control Device C150, Processes: P151 - Batch Mixer (P151), P152 - Continuous Mixer, and P153 - Sludge Tank

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		(5) The pressure drop across the wet scrubber and demister shall be maintained between 8 and 17 inches water column, or an alternative range approved in writing by the Department. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042]	performing the inspection. [s. NR 439.055(2)(b), Wis. Adm. Code, and s. 285.65(4), Wis. Stats., and 07-JAJ-042] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the wet scrubber system, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042] **(5)** The wet scrubber pressure drop, liquor flow, and pH monitoring devices shall be maintained in accordance with the manufacturer's recommendations and shall be calibrated at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code, and 07-JAJ-042]
2. Visible Emissions	**(1)** Emissions of shade or density may not exceed number 1 of the Ringlemann chart or 20% opacity. [s. NR 431.05, Wis. Adm. Code, and 07-JAJ-042]	**(1)** The requirements in I.J.1.b. and I.J.1.c. shall be used to demonstrate compliance with the visible emissions limit. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Visible Emissions: Whenever visible emission testing is required, the permittee shall use U.S. EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code]
3. Volatile Organic Compounds	**(1)** Latest Available Control Techniques and operating practices demonstrating best current technology (LACT). The permittee has demonstrated that 85% control of VOC emissions leaving the wet scrubber is technologically infeasible for the process line, and so shall use LACT. LACT is defined as the following process operation practices and limitations: (a) The facility shall operate the wet scrubber at all times the processes P151, P152, and P153 are	**(1)** The facility shall operate the wet scrubber at all times the processes are operating. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code, and 07-JAJ-042] **(2)** As required under I.J.1.b.(2)-(4). **(3)** The pressure drop across the wet scrubber and demister, the liquor flow rate, and the pH of the scrubbing fluid shall be maintained per manufacturer specifications, the most recent compliance test, the malfunction prevention and abatement plan required under I.ZZZ.1., or the CAM Plan required under Part III to meet the	**(1)** Whenever VOC compliance testing is required, USEPA Method 18, 25 or 25A, or another method approved by the Department in writing shall be used. When approved in writing an equivalent test method may be substituted for the required test method. [s. NR 439.06(3), Wis. Adm. Code, and 07-JAJ-042] **(2)** As required under I.J.1.c.(3)-(5). **(3)** The permittee shall inspect the circulation pump and packing of the wet scrubber monthly. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042]

J. Stack S150, Control Device C150, Processes: P151 - Batch Mixer (P151), P152 - Continuous Mixer, and P153 - Sludge Tank

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	operational, with monitoring of parameters: pressure differential, liquor flow rate, and pH of the scrubbing fluid. (b) The wet scrubber shall achieve one of the following: (i) An overall control efficiency of 64% for VOC emissions, or (ii) VOC emission rate no greater than 11.0 pounds per hour. [s. NR 424.03(2)(c), Wis. Adm. Code, and 07-JAJ-042] **(2)** Compliance Assurance Monitoring (CAM) Requirements: Processes exhausting to C150/S150 are a pollutant-specific emissions unit for volatile organic compounds and is subject to the CAM requirements of 40 CFR, part 64. The permittee's Compliance Assurance Monitoring Plan for Scrubber C150 for volatile organic compound control is included as Part III of this permit. [s. 285.65(13), Wis. Stats. 40 CFR 64.2 and 40 CFR 64.3(d)]	requirements under I.J.3.a.(1) and I.J.1.a.(1). [s. NR 419.03(1), Wis. Adm. Code, and s. 285.65(7), Wis. Stats., and 07-JAJ-042]	**(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the wet scrubber, containing the date of the action, initials of inspector, and the results. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042]
4. Phenol Emissions	**(1)** The processes may not emit more than 1,583 pounds of phenol per month, based on a 12-month rolling average (9.5 tons per year). [s. 285.65(7), Wis. Stats., and 07-JAJ-042-R1]	**(1)** Each calendar month, the permittee shall calculate the phenol emissions from this stack as follows. This calculation shall be performed within 15 calendar days of the end of each month. [s. NR 407.09(4)(a), Wis. Adm. Code and 05-JAJ-015-R1]	**(1)** Whenever Phenol compliance testing is required, NIOSH Method 2546, or another method approved by the Department in writing shall be used. When approved in writing an equivalent test method may be substituted for the required test method. [s. NR 439.06(8), Wis. Adm. Code, and 07-JAJ-042]

[17] This emission limitation established under 627005280-P02, along with current limits under (1) – (3) will keep potential emissions of phenol to <10 TPY (9.5 TPY).

[18] At the time of permit issuance, two types of resins are used, novalac and resol. The emissions factor for novalac resin ($EF_{novalac}$) is 0.0041 lbs-phenol/lb novalac resin. The emission factor for resol resin (E_{resol}) is 0.0012 lbs-phenol/lb resol resin. The permittee may use alternate emission factors if approved by the department in writing.

J. Stack S150, Control Device C150, Processes: P151 - Batch Mixer (P151), P152 - Continuous Mixer, and P153 - Sludge Tank

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	(2) The free phenol content of the resin may not exceed 1.5%, by weight. [s. 285.65(7), Wis. Stats., and 07-JAJ-042] **(3)** The wet scrubber shall achieve one of the following: (a) An overall control efficiency of 64% for VOC emissions, as required under I.J.3.a.(1)(b)(i), (b) An overall control efficiency of 54.5% for phenol emissions, or (c) A maximum emission rate of 3.3 lb/hr.[17] [s. 285.65(7), Wis. Stats., and 07-JAJ-042, and 627005280-P02]	$E_{phenol} = \sum[(EF_i \times Z_i) \times (1-C_{eff})$ where, E_{phenol} is the monthly phenol emissions in pounds per month; EF_i is an emission factor of the amount of phenol emitted per pound of each resin "i" used (lbs-phenol/lb resin)[18]; Z_i is the amount of resin "i" used in pounds per month; and C_{eff} is the efficiency of any control device controlling phenol emissions.[19] **(2)** To demonstrate compliance with condition I.J.4.a.(1), the permittee shall calculate the average phenol emissions from the facility over each 12 consecutive month period by summing the monthly phenol emissions as calculated in I.J.4.b.(1) for each consecutive 12 month period and dividing by 12. This calculation shall be performed within 15 calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code and 05-JAJ-015-R1] **(2)** As required under I.J.3.b.(3).	**(2)** The permittee shall maintain records of the following: (a) The total amount of each resin used in pounds per month (Z_i); (b) The monthly phenol emission rate in pounds per month (E_{phenol}) as calculated in I.J.4.b.(1); (c) The 12-month rolling average phenol emission rate for each consecutive 12 month period, as calculated in I.J.4.b.(2); and (d) Material safety data sheets or other technical documents which show the free phenol content of each resin used. [s. NR 407.09(4)(a)1., Wis. Adm. Code, and s. 285.65(7), Wis. Stats., and 05-JAJ-015] **(3)** As required under I.J.1.c.(3).

[19] At the time of permit issuance C_{eff} is 54.5 percent as established by stack testing conducted in June 2006. The permittee may use a C_{eff} as determined during the most recent phenol compliance emission test, and as approved by the department in writing.

K. Fugitive Sources F111 and F171, Processes P111 and P171 – Railcar Unloading - Plant #2 (P111/F111) and Railcar Loading - Plant #2 (P171/F171)

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Fugitive Dust	**(1)** The permittee may not cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may the permittee allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted, or demolished without taking such precautions. [s. NR 415.04(Intro.), Wis. Adm. Code, and 07-JAJ-042]	**(1)** No person may cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions. [s. NR 415.04, Wis. Adm. Code, and 07-JAJ-042] **(2)** Such precautions shall include, but not be limited to: (a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations. (b) Application of asphalt, water, suitable chemicals or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem. (c) Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled. (d) Covering or securing of materials likely to become airborne while being moved on public roads, railroads or navigable waters. (e) Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution. (f) The paving or maintenance of roadway areas so as not to create air pollution. [s. NR 415.04(1), Wis. Adm. Code, and 07-JAJ-042]	**(1)** Reference Test Method for Particulate Matter Emissions: Whenever particulate matter emission testing is required, the permittee shall use U.S. EPA Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17. [s. NR 439.06(1), Wis. Adm. Code] **(2)** If using water or chemicals for dust control, the permittee shall record: (a) the date and time of the water or chemical application; and (b) the area(s) at the facility where water or chemicals are applied. [s. NR 439.04(1)(d), Wis. Adm. Code, and 07-JAJ-042]

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Ammonia	**(1)** Facility wide ammonia emissions may not exceed 237.5 tons during any 12 consecutive month period.[20] [s. 285.65(7), Wis. Stats. and ss. NR 445.07(1)(a) and NR 445.08(2)(a), Wis. Adm. Code] **(2)** * The permittee shall limit facility wide ammonia emissions in one of the following ways: (a) Limit hexamethylenetetramine (hexa) use to not more than the following rates [ss. NR 445.07(1)(a) and NR 445.08(2)(b), Wis. Adm. Code]: (i) Total hexa usage in Tower A and Tower B, combined may not exceed 7,310 pounds per day; (ii) Hexa usage in Tower A may not exceed 5,375 pounds per day; AND (iii) Hexa usage in Tower B may not exceed 7,029 pounds per day. OR (b) Limit ammonia emissions to less than 28.2 pounds per hour averaged daily. [ss. NR 445.07(1)(a) and NR 445.08(2)(a), Wis. Adm. Code]	**(1)** Each calendar month, the permittee shall calculate the facility wide ammonia emissions as follows. This calculation shall be performed within 15 calendar days of the end of each month. [s. NR 407.09(4)(a)1., Wis. Adm. Code] $E_{NH3} = (0.27928 \times Z_{hexa}) \times (1 - C_{eff}) \times (1 \text{ ton}/2000 \text{ lbs})$ Where: E_{NH3} is the monthly ammonia emissions in tons per month; 0.27928 is an emission factor of the amount of ammonia emitted per pound of hexa used (lbs NH_3/lb hexa); Z_{hexa} is the amount of hexa used during the month in pounds per month; and C_{eff} is the efficiency of any control device controlling ammonia emissions.[22] **(2)** To demonstrate compliance with condition I.XXX.1.a.(1), the permittee shall calculate the total ammonia emissions from the facility over each 12 consecutive month period by summing the monthly ammonia emissions as calculated in I.XXX.1.b.(1) for each consecutive 12 month period. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(1)** Reference Test Method for Ammonia Emissions: Whenever ammonia emission testing is required, the permittee shall use U.S. EPA Method 206 (a.k.a. CTM-207) or other appropriate test method approved by the department in writing. [s. NR 439.06(8), Wis. Adm. Code] **(2)** The permittee shall keep monthly records of: (a) The amount of hexamethylenetetramine (hexa) used at the facility in pounds per month; (b) The total monthly facility wide ammonia emissions (E_{NH3}) in tons per month as calculated in I.XXX.1.b.(1); and (c) The total ammonia emissions from the facility in tons per year as calculated in I.XXX.1.b.(2). [s. NR 439.04(1)(d), Wis. Adm. Code] **(3)** The permittee shall maintain records as follows: (a) If complying with condition I.XXX.1.a.(2)(a), the permittee shall keep daily records of hexa use for: (i) Tower A; (ii) Tower B; and

[20] The permittee elected this limitation. This limitation also ensures that annual, facility wide ammonia emissions are less than the ch. NR 445, Table A value of 612,587 pounds per year.

[21] The acceptable ambient air concentrations for ammonia from Table A of s. NR 445.07, Wis. Adm. Code, at the time of permit issuance are 418 µg/m^3 on a 24-hour average and 100 µg/m^3 on an annual average.

[22] At the time of permit issuance C_{eff} is zero. If the permittee installs equipment to control ammonia emissions, or modifies existing equipment to control ammonia emissions, the permittee may use a C_{eff} as determined during the most recent ammonia compliance emission test, and as approved by the department in writing.

[23] At the time of permit issuance C_{eff} is zero. If the permittee installs equipment to control ammonia emissions, or modifies existing equipment to control ammonia emissions, the permittee may use a C_{eff} as determined during the most recent ammonia compliance emission test, and as approved by the department in writing.

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	OR (c) Provided the permittee has prior written approval from the department, limit the quantity, concentration or duration of ammonia, potential emissions from the facility so that the ambient air concentrations off the source property are less than the concentrations allowed under column (g) of Table A of s. NR 445.07, Wis. Adm. Code.[21] [s. NR 445.08(2)(b)] OR (d) Provided the permittee has prior written approval from the department, limit the concentration of ammonia in the stack to less than the ambient air concentrations allowed under column (g) of Table A of s. NR 445.07, Wis. Adm. Code. [s. NR 445.08(2)(e), Wis. Adm. Code]	**(3)** To demonstrate compliance with I.XXX.1.a.(2), the permittee shall keep the records required by I.XXX.1.c.(3). [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(4)** If complying with I.XXX.1.a.(2)(b), (c) or (d), the permittee shall use one of the following methods as approved by the department in writing: (a) calculate daily average, hourly ammonia emissions as follows: $E_{daily} = (0.27928 \times W_{hexa}) \times (1 - C_{eff}) \times (1 \text{ day}/24 \text{ hours})$ Where: E_{daily} is the daily average hourly ammonia emissions in pounds per hour; 0.27928 is an emission factor of the amount of ammonia emitted per pound of hexa used (lbs NH_3/lb hexa); W_{hexa} is the amount of hexa used during the day in pounds per day; and C_{eff} is the efficiency of any control device controlling ammonia emissions.[23]; OR (b) Operate the ammonia control device(s) and associated monitoring equipment, so that the control device parameters monitored during the compliance emission testing under I.XXX.1.b.(5) are monitored and maintained within the normal operating ranges determined during the compliance emission test and as approved by the department in writing. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(iii) Towers A and B combined. (b) If complying with condition I.XXX.1.a.(2)(b), (c) or (d), the permittee shall keep records of either: (i) the daily average, hourly ammonia emissions, as calculated in I.XXX.1.b.(4); OR (ii) the ammonia control device parameter operating value(s) as monitored according to I.XXX.1.b.(4) and as approved by the department in writing.[24] [s. NR 439.04(1)(d), Wis. Adm. Code] **(4)** The permittee shall maintain records of: (a) The report summarizing any compliance emission testing performed under I.XXX.1.b.(5); (b) The ammonia control efficiency determined during any testing; (c) A copy of any department's written approval to use a control efficiency when performing the calculations in I.XXX.1.b.(1), (2), and (4); (d) A copy of the normal operating ranges established for the control device parameters monitored during the emission testing performed under I.XXX.1.b.(5); (e) A copy of any department approval to use ammonia control device parameter monitoring to demonstrate compliance with I.XXX.1.a.(2)(b), (c), or (d) in lieu of

[24] The department approval to use ammonia control device parameter monitoring to demonstrate compliance with I.XXX.1.a.(2), will specify: (1) the parameters to be monitored; (2) the frequency that each parameter will be monitored and recorded; and (3) the normal operating range(s) of the parameter(s) to be monitored as determined during the compliance emission test required by I.XXX.1.b.(5).

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		(5) In order to take ammonia control equipment into account when demonstrating compliance with the requirements of I.XXX.1.a.(1) and (2), the permittee shall: (a) Perform compliance emission testing to determine the ammonia control efficiency of any ammonia control device; (b) Perform the compliance emission testing in accordance with the requirements of section I.ZZZ.2.; (c) Monitor appropriate control device parameters as required by s. NR 439.055, Wis. Adm. Code, or other appropriate control device parameters as approved by the department, during the compliance emission testing; (d) Establish normal operating ranges for control device parameters monitored as required by I.XXX.1.b.(5)(c); (e) Submit a request for written department approval to use the control efficiency determined during the compliance emission test when calculating ammonia emissions according to the equations in I.XXX.1.b.(1), (2), and (4). This written request shall include, but not be limited to: (i) A summary of the compliance emission test results, including the ammonia control efficiency determined during the test; (ii) The control device parameters monitored during the compliance emission test, including the normal operating ranges established during the test; and (iii) Calculations showing that ammonia emissions will be less than the following rates, averaged daily while operating the control device(s) within the established normal operating ranges: a) 28.2 pounds per hour; or b) the emission rate established using air dispersion modeling as required by	daily average, hourly ammonia emission calculations as allowed in I.XXX.1.b.(4); (f) If complying with I.XXX.1.a.(2)(c), a copy of the information required by I.XXX.1.b.(6) and written department approval to operate at an increased ammonia emission rate; and (g) If complying with I.XXX.1.a.(2)(d), a copy of the information required by I.XXX.1.b.(7) and written department approval to operate at an increased ammonia emission rate. [s. NR 439.04(1)(d), Wis. Adm. Code]

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		I.XXX.1.b.(6), if approved by the department in writing; OR c) the emission rate established using stack gas concentration measurements as required by I.XXX.1.b.(7), if approved by the department in writing. [s. NR 439.075(1)(b), Wis. Adm. Code] **(6)** If complying with I.XXX.1.a.(2)(c), the permittee shall: (a) Perform a detailed air quality dispersion modeling analysis and submit the results to the department. This analysis shall be performed using AERMOD or other dispersion model approved by the department; (b) Identify the ammonia emission rate, and associated stack parameters and operating conditions used in the air dispersion modeling that are necessary to ensure the ambient air concentrations off the source property are less than the concentrations allowed under column (g) of Table A of s. NR 445.07, Wis. Adm. Code; (c) If the air dispersion modeling results show an increased ammonia emission rate can be allowed while the ambient air concentrations off the source property are less than the concentrations allowed under column (g) of Table A of s. NR 445.07, Wis. Adm. Code, then the permittee shall evaluate whether the increase in emissions is a modification that requires a construction permit under chapter NR 406, Wis. Adm. Code; (d) If the results of the evaluation required by I.XXX.1..b.(6)(c), indicate a construction permit is required pursuant to ch. NR 406, Wis. Adm. Code, the permittee shall prepare and submit a construction permit application along with the associated application fee to the department for review; (e) The permittee may not operate at an increased ammonia emission rate allowed under I.XXX.1.a.(2)(c) until either: (i) A construction permit is issued by the	

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		department if one is required; or (ii) The department provides written approval to operate at an increased ammonia emission rate, based on review of the information submitted under this condition. [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(7)** If complying with I.XXX.1.a.(2)(d), the permittee shall: (a) Measure the maximum worst-case ammonia concentration in the exhaust gas in the stack while at the same time measuring or calculating the corresponding ammonia emission rate; (b) Submit the results of the ammonia stack gas concentration measurements and ammonia emission rate as determined in I.XXX.1.b.(7)(a); (c) If the results of the measurements required by I.XXX.1.b.(7)(a) show an increased ammonia emission rate can be allowed while the ammonia stack gas concentration is maintained at less than the concentrations allowed under column (g) of Table A of s. NR 445.07, Wis. Adm. Code, then the permittee shall evaluate whether the increase in emissions is a modification that requires a construction permit under chapter NR 406, Wis. Adm. Code; (d) If the results of the evaluation required by I.XXX.1..b.(7)(c), indicate a construction permit is required pursuant to ch. NR 406, Wis. Adm. Code, the permittee shall prepare and submit a construction permit application along with the associated application fee to the department for review; (e) The permittee may not operate at an increased ammonia emission rate allowed under I.XXX.1.a.(2)(d) until either: (i) A construction permit is issued by the department if one is required; or (ii) The department provides written approval to operate at an increased ammonia emission rate, based on review of the information submitted under this condition.	

XXX. Facility Wide Emission Limitations

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
		[s. NR 407.09(4)(a)1., Wis. Adm. Code]	
2.Formaldehyde	**(1)** * The owner or operator of a source that emits a hazardous air contaminant for which a control requirement is identified in column (i) of Table A in a quantity greater than the amount listed in column (c), (d), (e), or (f) of Table A for the contaminant shall control emissions of the contaminant to the level identified in column (i) of the table. Control requirements shall be applied according to the procedures in s. NR 445.08(2)(f), Wis. Adm. Code. [s. NR 445.07(1)(c), Wis. Adm. Code]	**(1)** Because the maximum theoretical formaldehyde emissions from the facility are less than the corresponding s. NR 445.07, Wis. Adm. Code, Table A value of 4,712 pounds per year for stacks that are greater than 75 feet, no further requirements are necessary to comply with ch. NR 445, Wis. Adm. Code for formaldehyde. The permittee shall maintain the records required by I.XXX.2.c.(1) to document the maximum theoretical formaldehyde emissions from the facility. [ss. NR 407.09(4)(a)1. and NR 439.04(1)(d), Wis. Adm. Code]	**(1)** The permittee shall maintain records to document the maximum theoretical formaldehyde emissions from the facility. [s. NR 439.04(1)(d), Wis. Adm. Code]

ZZZ. Conditions Applicable to the Entire Facility.

Condition Type	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Malfunction Prevention and Abatement Plan.	**(1)** A malfunction prevention and abatement plan shall be prepared and followed for the plant. [s. NR 439.11, Wis. Adm. Code] **(2)** All air pollution control equipment shall be operated and maintained in conformance with good engineering practices (i.e. operated and maintained according to manufacturer's specifications and directions) to minimize the possibility for the exceedance of any emission limitations. [s. NR 439.11(4), Wis. Adm. Code] **(3)** The facility shall submit the plan to the Department of Natural Resources, West Central Region Air Program, 1300 West Clairemont Box 4001, Eau Claire WI 54702-4001, phone (715) 839-3700, for review and approval whenever this plan is updated or revised. The department may amend the plan if deemed necessary for malfunction prevention or for the reduction of excess emissions during malfunctions. [s. NR 439.11(2), Wis. Adm. Code]	**(1)** The malfunction prevention and abatement plan shall be developed to prevent, detect and correct malfunctions or equipment failures which may cause any applicable emissions limitation to be violated or which may cause air pollution. [s. NR 439.11(1), Wis. Adm. Code] **(2)** This malfunction prevention and abatement plan shall include installation, maintenance and routine calibration procedures for the process monitoring and control equipment instrumentation. This plan shall require an instrumentation calibration at the frequency specified by the manufacturer, yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. Inspection and calibration shall also be conducted whenever instrumentation anomalies are noted. [ss. NR 407.09(1)(c)1.c., NR 439.055(4) and s. NR 439.11, Wis. Adm. Code] **(3)** The malfunction prevention and abatement plan shall require a copy of the operation and maintenance manual for the control equipment to be maintained on site. The plan shall contain all of the elements in s. NR 439.11(1)(a) – (h), Wis. Adm. Code. [s. NR 439.11, Wis. Adm. Code]	None Applicable.
2. Stack Testing Requirements.	**(1)** If any required compliance emission test(s) cannot be conducted within the time frames specified in this permit, the permit holder may request and the Department may approve, in writing, an extension of time to conduct the test(s). [s. NR 439.07, Wis. Adm. Code] **(2)** All testing shall be performed with the emissions unit operating at capacity or as	**(1)** Two copies of the report on any compliance emission tests shall be submitted to the Department for evaluation within 60 days following the completion of tests. [s. NR 439.07(9), Wis. Adm. Code]	None Applicable.

ZZZ. Conditions Applicable to the Entire Facility.

Condition Type	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	close to capacity as practicable and in accordance with approved procedures. If operation at capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.07(1), Wis. Adm. Code] **(3)** The Department shall be informed at least 20 working days prior to any stack testing, so a Department representative can witness the testing. At the time of notification, a compliance emission test plan shall also be submitted to the Department for approval. When approved in writing, an equivalent test method may be substituted for the reference test method. The notification and test plan shall be submitted to the Department of Natural Resources, West Central Region Air Program, 1300 West Clairemont Box 4001, Eau Claire WI 54702-4001, phone (715) 839-3700. [s. NR 439.07(2), Wis. Adm. Code]		
3. Compliance Reports/Records.	**(1)** Upon issuance of the operation permit, the permittee shall submit periodic monitoring reports. [s. NR 407.09(1)(c)3., Wis. Adm. Code] **(2)** Upon issuance of the operation permit, the permittee shall submit periodic certification of compliance. [s. NR 407.09(4)(a)3., Wis. Adm. Code] **(3)** The records required under this permit shall be retained for at least five (5) years	**(1)** The permittee shall submit a monitoring report which contains the results of monitoring or a summary of monitoring results required by this permit to the Department every six (6) months. (a) The time periods to be addressed by the submittal January 1 to June 30 and July 1 to December 31. (b) The report shall be submitted to the Department of Natural Resources, West Central Region Air Program, 1300 West Clairemont Box 4001, Eau Claire WI 54702-4001, phone (715) 839-3700, within 45 days after the end of each reporting period.	None Applicable.

ZZZ. Conditions Applicable to the Entire Facility.

Condition Type	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
	and shall be made available to department personnel upon request during normal business hours. [s. NR 439.04, s. NR 439.05, Wis. Adm. Code]	(c) All deviations from and violations of applicable requirements shall be clearly identified in the submittal. (d) Each submittal shall be certified by a responsible official as to the truth, accuracy and completeness of the report. (e) The content of the submittal is described in item D. of Part II of the operation permit. [ss. NR 407.09(1)(c)3. & NR 439.03(1)(b), Wis. Adm. Code] **(2)** The permittee shall submit an annual certification of compliance with the requirements of this permit to the Department of Natural Resources, West Central Region Air Program, 1300 West Clairemont Box 4001, Eau Claire WI 54702-4001, phone (715) 839-3700, and to Compliance Data – Wisconsin, Air and Radiation Division, US EPA, 77 W. Jackson Street, Chicago, IL 60604. (a) The time period to be addressed by the report is January 1 to December 31 of the preceding year. (b) The report shall be submitted to the Wisconsin Department of Natural Resources and the US EPA within 45 days after the end of each reporting period. (c) The information included in the report shall comply with the requirements of Part II, Section N of this permit. (d) Each report shall be certified by a responsible official as to the truth, accuracy and completeness of the report. [ss. NR 407.09(4)(a)3. & NR 439.03(1)(c), Wis. Adm. Code]	